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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,343	01/27/2004	Steven Bress		1056

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EXAMINER	
IWASHKO, LEV	
ART UNIT	**PAPER NUMBER**
2186	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/765,343	BRESS ET AL.	
	Examiner	Art Unit	
	Lev I. Iwashko	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 recites "The copying device of claim 1, wherein the control circuit sets the Host Protected Area on a copied device to the size of a source device." However, Claim 1 did not define a Host Protected Area. There is therefore insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 5, 10, 12, 16, 18-22 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (US Patent 6,438,638).

Claim 1. A device for making exact copies of long-term memory devices comprising: *(Column 9, lines 41-44 – State the following: "FIG. 9 is a diagram of a stand-alone FlashToaster that accepts several formats of flash-memory cards and can copy images to a removable disk without being connected to a host PC")*

- an interface for connecting to a storage device (source); *(Column 9, lines 41-42 – State that the flash card is connected to the FlashToaster)*

- one or more interfaces for connecting to the storage device(s) (destination); *(State that the FlashToaster is connected to a removable disk)*
- a user controllable switch that, when actuated by a user, causes the device to commence a copy; *(Column 10, lines 31-34 – Declare a button 79 that is pushed by the user to commence copying)*
- and a control circuit coupled to the interface (source) and the interface(s) (destination), the control circuit issuing commands to make an exact copy of the storage device connected to the interface (source), wherein the copying device is operating system independent. *(Column 10, lines 31-34 – States the following: "This activates controller chip 40, which determines which of connectors 62, 64, 66,..68 has a memory card inserted, and copies the image files to removable mass storage 70")*

Claim 5. The copying device of claim 1, wherein the interface is an integrated device electronics (IDE) interface for a disk drive. *(Column 12, lines 5-7 – Declare that the host can be an IDE interface)*

Claim 10. The copying device of claim 1, further comprising: one or more additional interfaces for connecting to display and/or output devices, to produce a report. *(Column 10, lines 27-39 – Declare that there is an interface which tells the user by LED on the status of the copying)*

Claim 12. The copying device of claim 1, further including light emitting diodes (LEDs) coupled to the control circuit and configured to transmit status information relating to the status of the copying device. *(Column 10, lines 34-36 – Declare an LED that can blink during or after the copying process)*

Claim 16. The copying device of claim 1, further comprising: a casing configured to contain the control circuit and the interface, the user controllable switch being mounted on the casing, the casing being of a size that is portable by

the user. *(Figure 8 – Shows a portable casing that holds the entirety of the invention)*

Claim 18. The copying device of claim 16, further comprising: cables emanating from the casing and connected to the interfaces, the cables being configured to connect to long-term memory devices. *(Column 9, lines 25-27 – State that copying can be done by cables)*

Claim 19. The copying device of claim 18, wherein the cables are Integrated Device Electronics (IDE) cables. *(Column 9, lines 25-27 – Declare ATA (a.k.a. IDE) cables)*

Claim 20. The copying device of claim 1, further comprising: a power supply configured to supply power to the control circuit. *(Column 10, lines 25-26 – Claim that power can be supplied by AC adapter or batteries)*

Claim 21. The device of claim 20, further comprising: drive power cords emanating from the casing and configured to supply power from the power supply to the long-term memory components. *(Column 7, lines 45-49 – State the following: "The ground pins on the smaller interfaces are connected to CompactFlash pins 1 and 50. Power pins are connected to CompactFlash pins 13, 38. Pins 25, 26 are the card detect signals for CompactFlash, which the adapters connect to the card-detect signals on all smaller interfaces")*

Claim 22. A copying device comprising: *(Column 9, lines 41-44 – State the following: "FIG. 9 is a diagram of a stand-alone FlashToaster that accepts several formats of flash-memory cards and can copy images to a removable disk without being connected to a host PC")*

- means for interfacing with a source drive wherein the source device is protected from accidental state changes; *(Column 9, lines 41-42 – State that the flash card is connected to the FlashToaster. Column 1 lines 23-27 – State that Flash Memory is used, which has automatic protection from erasure))*

- means for interfacing with one or more destination devices; *(State that the FlashToaster is connected to a removable disk)*
- means initiating the copying procedure; *(Column 10, lines 31-34 – Declare a button 79 that is pushed by the user to commence copying)*
- and means for making an exact copy, wherein the copy device is operating system independent. *(Column 10, lines 31-34 – States the following: "This activates controller chip 40, which determines which of connectors 62, 64, 66,..68 has a memory card inserted, and copies the image files to removable mass storage 70")*

Claim 27. The copying device of 1, wherein the source and destination devices have different interfaces. *(Column 9, lines 69-64 and Column 11, lines 15-19 – State that the source and destination devices have different interfaces)*

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 2-3 and 23 are rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 22 above, further in view of Saiki et al. (US Patent 5,953,513)

Jones teaches the limitations of claims 1 and 22 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to the verification process.

Jones fails to teach claims 2-3 and 23, which all respectively state "The copying device of claim 1, wherein the control circuit issues commands to verify the copy is an exact match with

the source", "The copying device of claim 2, wherein the control circuit reads and compares the source and copy devices", and "The copying device of 22, further comprising: means for verifying an exact copy was made." However, Saiki states the following: "According to the above, the connection between the first and the second recording and reproducing devices through the main controller is used to perform copy or verify commands without the use of the interface controller. Therefore, occupation of the interface bus (the SCSI bus) and the overhead of the interface (SCSI) protocol is eliminated" (Column 3, lines 26-32). Saiki further states "That is, the storage system can issue a command complete message and free the SCSI bus 17 when the data has been written only in the magnetic disc apparatus 101 as described above and before the data has been written in the optical disc apparatus 1. In this case, the magnetic disc apparatus 101 is used as a write buffer of the optical disc apparatus 1 to avoid the long occupying of the SCSI bus 17" (Column 6, lines 10-16). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Saiki's "Recording and Reproducing Device" to include a verification that the copy was made, so that the system would indeed know for certain that information was not corrupt or inaccurate, thereby helping to ensure proper procedure and system efficiency.

6. Claim 4 is rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1-2 above, further in view of Wagner et al. (US Patent 3,516,431 A)

Jones teaches the limitations of claims 1-2 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to a switch that interrupts the verification process.

Jones fails to teach claim 4, which states "The copying device of claim 2, wherein a user controllable switch is connected to the control circuit to interrupt the verification procedure." However, Wagner discloses "a stop means on said verification" (Column 12, line 53). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Wagner's "Direct Digital System" to include a switch to interrupt the verification procedure, so that the user could control the process thereby making the entire system more user-friendly.

7. Claims 6-7, 9, and 24 are rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 22 above, further in view of Thibadeau (US PGPub 2003/0023867 A1).

Jones teaches the limitations of claims 1 and 22 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to HPA.

Jones fails to teach claims 6-7, 9, and 24, which all respectively state "The copying device of claim 1, wherein the control circuit accesses hidden/blocked areas of a source drive and subsequently restores the source drive to the original settings after a copy process is complete", "The copying device of claim 6, wherein the control circuit removes or modifies a Host Protected Area (HPA) from a source device and restores the HPA after a copy process is complete", "The copying device of claim 1, wherein the control circuit sets the Host Protected Area on a copied device to the size of a source device", and "The copying device of 22, further comprising: means for copying hidden/protected areas and returning the source device to its original state." However, Thibadeau states the following: "Data storage, as applied herein, can

be provided in connection with a conventional disk controller protocol such as ATA or SCSI. One type of security protocol available to ATA, in particular, is known to those skilled in the art as ATA Host Protected Area. Mapped-out storage, as applied herein, is storage space that is mapped-out by tables in the NWF and WF to indicate bad sectors. It is understood that other data can be mapped out of the writeable storage by the disk controller for the storage device." (Section 0032, lines 1-9). Thibadeau further states "In another embodiment, the security partition region is modeled like an ATA Host Protected Area region. The partition containing the master authority record and the other authority records has a known, fixed size and uses storage hidden even from an ATA Host Protected Area call. Any partitions below the master authority record can use the top portion of the ATA Host Protected Area space. Since write and read operations in the ATA Host Protected Area space are typically rare, it can be effective to add a function to check for SP-protected regions" (Section 0054, lines 1-10). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Thibadeau's "Methods and Systems for Promoting Security in a Computer System Employing Attached Storage Services" to include an HPA so that the system could run more efficiently and securely.

8. Claim 8 is rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 6 above, further in view of non-Patent document entitled "Device Configuration Overlay Proposal" (hereafter known as "McLean").

Jones teaches the limitations of claims 1 and 6 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to DCO.

Jones fails to teach claim 8, which states "The copying device of claim 6, wherein the control circuit removes or modifies Device Configuration Overlay settings (DCO) from a source device and restores the DCO after a copy process is complete." However, McLean discloses the following: "For a particular command, mode, capacity, or feature set, when a bit is cleared indicating that the device does not support the feature, the device shall not provide the feature. Also, the maximum capacity of the device may be reduced. Since a host protected area may be lost if the capacity of the device is reduced, an attempt to modify the maximum capacity when a host protected area is set will cause the DEVICE CONFIGURATION SET command to return command aborted. If a DEVICE CONFIGURATION FREEZE LOCK command has been issued since the device powered-up, the DEVICE CONFIGURATION RESTORE command shall return command aborted. The settings made by a DEVICE CONFIGURATION SET command are maintained over power-down and power-up. A DEVICE CONFIGURATION IDENTIFY command indicates the selectable commands, modes, capacity, and feature sets that the device is capable of supporting. After the execution of a DEVICE CONFIGURATION SET command this information is no longer available from an IDENTIFY DEVICE or IDENTIFY PACKET DEVICE command. A DEVICE CONFIGURATION RESTORE command disables an overlay that has been set by a DEVICE CONFIGURATION SET command and returns the IDENTIFY DEVICE or IDENTIFY PACKET DEVICE command response to that indicated by the DEVICE CONFIGURATION IDENTIFY command. Since a host protected area may be lost if the capacity of the device is reduced, an attempt to modify the maximum capacity when a host protected area is set will cause the DEVICE CONFIGURATION RESTORE command to return command aborted. If a DEVICE CONFIGURATION FREEZE LOCK command has been issued

since the device powered-up, the DEVICE CONFIGURATION RESTORE command shall return command aborted. A DEVICE CONFIGURATION FREEZE LOCK command prevents accidental modification of the state of the Device Configuration Overlay feature set. A device always powers-up with configuration freeze lock not set. After a successful DEVICE CONFIGURATION FREEZE LOCK command is executed, all DEVICE CONFIGURATION SET and DEVICE CONFIGURATION RESTORE commands are aborted by the device until the device is powered-down and powered up again. The freeze locked state is not effected by hardware or software reset" (Page 2, lines 1-27). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and McLean's "Device Configuration Overlay Proposal" to include DCO setting remove and restore so that the system would run efficiently and accurately.

9. Claims 11 and 26 are rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 22 above, further in view of Duyanovich et al. (US Patent 5,835,954).

Jones teaches the limitations of claims 1 and 22 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to unreadable data indication.

Jones fails to teach claims 11 and 26, which respectively state "The copying device of claim 1, wherein the control circuit writes a standard bit pattern on a copy device to indicate unreadable data on the source device", and "The copying device of 22, further comprising: means for indicating areas on a source device that were unreadable." However, Duyanovich states the following: "In contrast to the preceding description, if query 632 finds that the read

attempted in task 630 is unsuccessful, task 642 creates a record marking these tracks as being unreadable. This may be achieved by creating a list, bit map, or other appropriate summary on the target DASD 200 or another suitable location" (Column 9, lines 61-66). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Duyanovich's "Target DASD Controlled Data Migration Move" to include an indicator for unreadable data so that the system would accurately show which data couldn't be dealt with, thereby increasing the utility of the invention.

10. Claims 13, 15, and 25 are rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 22 above, further in view of Yanai et al.(US Patent 6,173,377 B1).

Jones teaches the limitations of claims 1 and 22 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to scanning for particular bits.

Jones fails to teach claims 13, 15, and 25, which all respectively state ""The copying device of claim 1, wherein the control circuit scans the source device for one or more specific bit patterns, during the copy procedure", "The copying device of claim 13, further including: one or more additional interfaces for connecting to input devices, to receive specific bit patterns to scan", "The copying device of 22, further comprising: means for scanning for one or more specific bit patterns." However, Yanai states the following: "The system as claimed in claim 4, wherein the first data storage system includes a processor for periodically scanning for remote write-pending indicator bits and invoking a copy task which copies data from primary storage in the first data storage system to secondary storage in the second data storage system" (Column 60,

lines 66-67 and Column 61, lines 1-4). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Yanai's "Remote Data Mirroring" to include a scanning function so that particular bits could be identified, thereby increasing the efficiency and accuracy of the system.

11. Claim 14 is rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 13 above, further in view of Iida (US Patent 6,339,814 B1)

Jones teaches the limitations of claims 1 and 13 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to a switch controls scanning.

Jones fails to teach claim 14, which states ""The copying device of claim 13, further including: a user controllable switch is connected to the control circuit to enable scanning functions only." However, Iida discloses "If the STOP button 54 is pressed during a scan reproduction, the control block 30, according to an input signal from the operation block 50, releases the scan reproduction and enters a stop state" (Column 16, lines 31-34). Therefore, it would have been obvious to one of ordinary skill in the art to combine the "FlashToaster" of Jones and Iida's "Storage and Reproduction Apparatus" to include a switch to for the scanning procedure, so that the user could control the process thereby making the entire system more user-friendly.

12. Claim 17 is rejected under 35 U.S.C.103(a) as being unpatentable over Jones et al. as applied to claims 1 and 16 above.

Jones teaches the limitations of claims 1 and 16 for the reasons above.

Jones' invention differs from the claimed invention in that there is no specific reference to the size of the casing.

Jones fails to teach claim 17, which states "The copying device of claim 16, wherein the casing is a rectangular casing that is 7.0"x4.5"x1.25" or smaller." However, stating that there is a specific size of the casing does not change the purpose or functionality of the claimed invention. Therefore, it would have been obvious to one of ordinary skill in the art to enable Jones' "FlashToaster" to have been of a specific dimension of 7.0"x4.5"x1.25", to maintain make sure that it is indeed portable and thereby making the resulting system user-friendly.

For further information, reference Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984) cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), which states that the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lev I. Iwashko whose telephone number is (571)272-1658. The examiner can normally be reached on M-F (alternating Fridays), from 8-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on (571)272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lev Iwashko

MATTHEW KIM
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